

# SCIENCE

# And Technology Program



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In March 1995, the Federal Energy Regulatory Commission (FERC) issued a notification concerning open access to electric utility services, referred to as a NOPR (Notice Of Proposed Rule-making). In June 1996, the NOPR became effective as FERC Orders 888 and 889. The basic intent of these orders is to establish a deregulated marketplace, similar to a commodities market, for electric energy. As a producer of renewable electric energy, the Bureau of Reclamation can expect to play a key role in this market. To enable Reclamation to best participate in the marketplace, proper economic and capability models need to be developed and made available to both the marketers and consumers of Reclamation energy.

The goal of this research is to develop a baseline economic model for hydroelectric generation capability as well as the key communication procedures necessary to support financially valuable data exchange. The development effort is being coordinated with other agencies to ensure that accurate, comprehensive, and timely information will be provided to Power Marketing Agencies (PMAs) handling Reclamation energy sales. At this early stage, it is not possible to draw accurate conclusions. The ICCP (Inter-control Center Communication Protocol) is the currently accepted communications support vehicle for data transmission to and from PMAs and Independent System Operators (ISOs). Efforts have begun to quantify and record ancillary services (special energy supply capabilities) at several of Reclamation's Lower Colorado and Mid-Pacific powerplants. The ancillary services records will be used to establish the value of these services in the California ISO marketplace and to better refine the models. The ancillary and base service values will then be refined in cooperation with the PMAs to compensate for normal operation and maintenance costs and to complete the models. Some of the collected information has been shared with BPA (Bonneville Power Administration) to assist them in setting ancillary services values. This cooperation is expected to continue.

Bureau of Reclamation, Lower Colorado Region  
Bureau of Reclamation, Mid-Pacific Region  
Bonneville Power Administration  
Cycle Software, Inc.

A commercial communications package supporting the ICCP was selected, procured, and installed at the Central Valley Operations Office (CVOO) to establish baseline communications with the California ISO and Reclamation's local PMA, the Western Area Power Administration.